



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 8, MONTANA OFFICE**

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Ref: 8MO

March 13, 2014

John W. Ray, Ph.D.  
915 West Galena St.  
Butte, MT 59701

Dear Dr. Ray:

Thank you for your February 17, 2014 email and attachment titled "EJ Complaint—Butte Health Study" and your March 2, 2014 email titled "Environmental Justice and Butte Superfund Problems: Follow Up concern and complaint." The United States Environmental Protection Agency (EPA) takes very seriously your complaints and concerns and its mission to promote environmental justice. I assure you that EPA has taken great care throughout the Superfund cleanup process in Butte to identify and address environmental justice issues and respond to environmental justice concerns. Specific responses to you have been provided on several occasions regarding your environmental justice concerns discussing in detail EPA's ongoing efforts to identify and address environmental justice issues related to the Superfund cleanup in Butte.<sup>1</sup> The Montana Office has worked closely with the Region 8 environmental justice program to carefully evaluate and respond to your concerns.

The Butte Residential Metals Abatement Program (RMAP) Plan and its multi-pathway approach were developed, in part, to address EPA's environmental justice mandate as established in Executive Order 12898 (January 12, 2010). The RMAP accomplishes this by implementing a protective human health standard that takes into account behaviors associated with low income people in the assumptions used to calculate that standard, and it details specific efforts to reach low income property owners and renters. It also provides cleanup for multiple pathways, such as lead paint in older homes or lead in older household piping – a source of lead common for low income residents. As we have discussed with you, EPA has determined the cleanup program to be protective but is also evaluating the U.S. Department of Health and Human Services Centers for Disease Control 5 micrograms per deciliter blood lead reference level as it relates to cleanups across the country.

For many years now, the RMAP, which is the focus of the Draft Final Public Health Study Phase 1, has been systematically sampling, assessing, and remediating residential properties addressing

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<sup>1</sup> In response to prior EJ complaints from Dr. John Ray, EPA issued detailed EJ complaint responses on August 2, 2004; August 23, 2005; December 26, 2006; January 23, 2007; January 12, 2010; and October 4, 2012.



lead, arsenic, and mercury within the Butte Priority Soils operable unit (BPSOU) and the adjacent area, including low-income communities. EPA continues to oversee the RMAP implementation effort and promote Environmental Justice in all of its activities. Since work has begun at the site, EPA has incorporated environmental justice into community involvement activities associated with the RMAP and the Health Study. These efforts are detailed in the revised Community Involvement Plan, February 2013, in section 2.6. This section provides a good summary of what has been done historically and what continues to be done today. I wish to once again express my appreciation for your assistance in revising the Community Involvement Plan and for your participation and involvement in the development of the Draft Final Public Health Study Phase 1, the Technical Memorandum for the health study, the work plan for the Public Health Study, and for your involvement with developing the Silver Bow Creek/Butte Area Residential Metals Program, Bulletin No. 18, April 2, 2012.

Throughout the cleanup process, EPA has worked closely with the Butte-Silver Bow County Health Department to develop and implement specific outreach efforts for socioeconomically disadvantaged citizens and children potentially at higher risk for exposure to environmental contaminants. EPA's October 4, 2012 response to comments (attached) describes the Health Study process and how environmental justice concerns were addressed in its scoping and development. The attached press release describes the specifics of the next public meeting intended to solicit additional public comment on the Health Study. Please note that the meeting location was suggested by the local citizens group (of which you are the president) and technical assistance grant recipient, CTEC, as an accessible venue. Note also that the press release is distributed in the Montana Standard, Butte Weekly (free paper), and is available online.

EPA has strived to consistently meet its environmental justice mandate at the Butte site. EPA will continue to promote and include environmental justice in all Superfund activities. Specific activities to address environmental justice issues in Butte are described in EPA's October 4, 2012 response letter and the February 2013 Revised Community Involvement Plan. The Health Study Workplan, Draft Final Health Study Phase 1, Revised Community Involvement Plan, response letters, press releases, party line interviews, bulletins, fact sheets, RMAP, and past information provided to CTEC all provide further information on outreach conducted to involve community members including low income citizens.

The primary study objective to be addressed by phase 1 of the health study is the review and evaluation of available RMAP data that have been collected to date in order to objectively document the efficacy of the RMAP and identify any areas where improvement to activities conducted via the RMAP may be needed. The majority of the blood lead data in the current health study came from patients recruited for regular blood lead testing through Butte-Silver Bow County's Women, Infants, and Children (WIC) program in Butte<sup>2</sup> (Draft Final Public Health Study Phase 1, 2014).

Although the Draft Final Public Health Study Phase 1 is not a decision document, it does represent EPA's commitment to the concerns of all citizens of Butte that their voices are heard and addressed. EPA promotes meaningful involvement of all people. Although the work plan

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<sup>2</sup> The qualification for WIC is 175% of the federal poverty level or below. However, county blood lead records include those from WIC clients as well as from individuals referred via the RMAP and local physicians.

and draft report for the Butte Health Study are produced by the Butte-Silver Bow County Health Department, the documents have been independently peer reviewed through the work group process and will be further vetted through public review and comment.

EPA has a strong commitment to continue to include environmental justice considerations in the Public Health Study. With your assistance, the Montana Office has developed and revised its Community Involvement Plan specifically to address environmental justice concerns and to engage all community members in Butte. EPA has ongoing environmental justice training requirements for staff, with which the Montana Office complies to ensure that all staff are aware of environmental justice concerns and the requirements of Executive Order 12898. The Montana Office will continue to make environmental justice a priority in our mission with the goal of ensuring that all residents in the community of Butte are equally protected from adverse environmental affects or impacts.

Thank you again for your comments and concerns. If you have any questions or if you require additional information, please contact me at (406) 457-5019 or [green.nikia@epa.gov](mailto:green.nikia@epa.gov).

Sincerely,

A handwritten signature in black ink that reads "Nikia Greene". The signature is fluid and cursive, with the first name "Nikia" and last name "Greene" clearly distinguishable.

Nikia Greene  
Remedial Project Manager

cc:  
Julie DalSoglio, EPA  
Joe Vranka, EPA  
Sara Sparks, EPA  
Joe Griffin, DEQ  
Jeni Garcin, DEQ  
Tracy Stone-Manning, DEQ  
Jenny Chambers, DEQ



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**FEDERAL BUILDING, 10 W. 15<sup>th</sup> STREET, SUITE 3200**

**HELENA, MONTANA 59626**

**October 4, 2012**

**John W. Ray, Ph.D.  
915 West Galena St.  
Butte, MT 59701**

**Dear Dr. Ray:**

**This letter responds to your September 23, 2012 email titled "Environmental Justice Complaint – Butte, Montana Health Studies", and to your additional September 23, 2012 email titled "Complaint- BSB Health Department Cannot Conduce (sic) a Valid and Reliable Health Study and Should Be Removed". Your emails address various issues associated with the development of the Public Health Study Work Plan by the Butte Priority Soils operable unit Respondents, including Butte Silver Bow County (BSB).**

**The first point you make concerns the use of "incidence studies", which you consider unreliable. Your contention has been answered in a previous email response to you from the U.S. Environmental Protection Agency (EPA), and at a public listening session for the health studies. To repeat our response, Dr. Michelle Watters (Agency for Toxic Substances and Disease Registry Medical Officer and expert in the field of human health and epidemiology) advises that:**

***Incidence rates are the number of new cases of a disease occurring in a defined population during a specific time period (typically a year). Incidence reflects the occurrence of a disease and does not reflect the severity of the disease, or in the case of cancer, the staging of the disease. Depending upon the disease and the type of health outcome data collected, incidence rates may not accurately represent the rate in lower income populations. For example, lower income populations may be under represented in a tally of physician office visits if one wanted to determine an incidence for an acute illness such as a colds or rash or a chronic illness such as hypertension because individuals may not seek medical attention or self-treat. Similarly, lower income populations may have a higher incidence rate of a disease if one was to use emergency room visits in making these estimates because they have no specific health care provider or the condition has become severe enough to seek medical attention in an urgent manner.***

***For cancer studies, incidence rates are the most appropriate epidemiologic analysis to use to ascertain the rates of cancer in a community. The state tumor registry is close to complete and accounts for both in-state and out-of-state cancer diagnoses to residents by reporting from pathology labs, oncology clinics, and hospital physician practices. The tumor registry also captures cases from death certificates that have not been reported earlier by these other mechanisms. The cancer incidence rate does not reflect the stage of cancer and prognosis. This is true regardless of socioeconomic class. Because cancer prognosis depends on the stage when diagnosed and the treatment received, cancer mortality rates are often elevated in lower socioeconomic groups that do not have good preventive services and screening, access to healthcare,***



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*or access to treatment. Thus cancer mortality rates reflect public health gaps and are used to identify needed services.*

*When one interprets health study data or selects an epidemiological study design, it is important to understand the limitations of any database being used. As stated, for cancer, tumor registry data and the calculation of incidence rates is preferred over cancer mortality data. For other health conditions, socio-economic factors that influence the rates need to be put in context.*

In short, use of incidence rate cancer information is appropriate and representative. EPA will work closely with the Butte Silver Bow Health Department (BSB) and other Group I Respondents to ensure that they continue to use the most representative data available in conducting the human health protective actions required by the Butte Priority Soils operable unit (BPSOU) Record of Decision (ROD)(EPA 2006).

Responding to Environmental Justice (EJ) and other process concerns presented in your messages, I would like to explain the processes past, present, and future for the work plan and health studies, and reference dates upon which EPA has responded to your specific letters and emails concerning related EJ concerns<sup>1</sup>.

Under the EPA Unilateral Administrative Order for conduct of the BPSOU ROD (EPA 2011), Group I Respondents, including the Atlantic Richfield Company (AR) and BSB, are required to prepare a Public Health Study Remedial Design Workplan that will be approved by EPA, in consultation with the State Department of Environmental Quality (DEQ). These entities can and have provided qualified personnel for development of the work plan and conduct of the studies. The work plan will be submitted in draft form to the EPA and DEQ by October 31, 2012. Following the submission of the draft, additional public meetings will be held to share information and solicit community input on the draft work plan (expected in November/December 2012 timeframe), and, following completion of the study, to present a summary of the public health study findings and further solicit input (expected in September 2013). Throughout the planning and implementation process, periodic community updates will be disseminated via the community advisory committee, which was appointed by the BSB Board of Health to provide support and guidance to the technical team throughout the public health study process.

As part of its role in developing the Public Health Study Remedial Design Work Plan and the subsequent studies, the BSB Health Department appointed an advisory committee to assist with its efforts. This committee is not actually developing the work plan, as your messages seem to suggest, but will be advising the BSB Health Department about the work plan and study. In doing so, EPA will encourage the BSB Health Department and advisory committee to solicit low income community member input, as well as other public input.

BSB has already conducted substantial public involvement activities. Public outreach activities began early in the project planning process. In May 2012, BSB HD held a series of public listening sessions where members of the public, including low income community members, were given the opportunity to provide critical input regarding community environmental health concerns. EPA also held a public meeting in May to provide additional information about the

planning activities being conducted for the public health study. Questions and concerns that came from the public meetings are being addressed through a suite of fact sheets designed by the health study team and distributed in the Montana Standard and Butte Weekly (a free weekly paper). The fact sheets will be attached to the draft and final work plan.

EPA will work with the BSB to ensure that environmental justice areas are considered when determining future outreach activities such as location of public meetings and notice of opportunities for public input.

The draft work plan, which as noted will be presented for public comment when completed in draft form, will present a phased approach to address the study and its objectives. The first phase will rely on analyses of the more than ten years of blood lead data compiled by the BSB HD to assess blood lead levels (BLLs) in Butte children and pregnant women.

The results of this initial phase will be used to assess the efficacy of the RMAP, as well as inform the need for and objectives of subsequent study phases. Due to confidentiality issues and the Health Insurance Portability and Accountability Act (HIPAA) which pertains to privacy of health information, EPA cannot request specific information about those tested; however, EPA will work with the BSB HD to ensure that the data represents a broad spectrum and is inclusive of underrepresented populations within the Butte area.

EPA will continue to provide support and oversight in the design of the current and future health studies.

Sincerely,



Nikia Greene  
Remedial Project Manager

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<sup>3</sup> EPA has issued detailed EJ complaint responses to you on August 2, 2004; August 23, 2005; December 26, 2006; January 23, 2007; and January 12, 2010.

cc:

Sara Sparks, EPA  
Libby Faulk, EPA  
Joe Vranka, EPA  
Joe Griffin, DEQ  
Henry Elsen, EPA  
Corbin Darling, EPA  
Terri Hocking, BSB  
Dan Powers, BSB



## **Butte-Silver Bow Health Department Releases Draft Final Superfund Health Study**

**Contact: Dan Powers, Assistant Health Director  
406-497-5025, [dpowers@bsb.mt.gov](mailto:dpowers@bsb.mt.gov)**

**BUTTE, Montana** – The first phase in a series of public health studies, the Draft Final Superfund Health Study, is open for public comment. Please attend the April 9th public meeting and submit comments during the sixty (60) day public comment period. Your involvement and commitment to improving public health in Butte is vital. The focus of the public meeting is to provide information about the first phase study, answer questions, and receive public comment. Knowledgeable meeting representatives will also be available at informational booths to address other objectives of the public meeting including but not limited to:

- Public education about ongoing sources of exposure in Butte and how to reduce lead exposure;
- Public education about the residential cleanup program;
- Ongoing remedial actions in BPSOU;
- Public input related to other public health concerns; and
- How to get involved.

The public meeting is planned for April 9<sup>th</sup> from 3:30 to 7:30 p.m. at the Copper Auditorium at the Mining City Center located at 400 West Park Street in Butte. During the public meeting, study investigators and collaborators will provide more information about the study and will be available to answer questions from community members. Community members are encouraged to provide written comments on the draft final study report during the April 9<sup>th</sup> meeting or by emailing [dpowers@bsb.mt.gov](mailto:dpowers@bsb.mt.gov). A final study report, which will reflect comments received and include a response to comment summary prepared by the study Working Group representatives, will be submitted to the Environmental Protection Agency in July 2014.

The draft final study report presents the results of the first phase health study which assesses the effectiveness of the Residential Metals Abatement Program (RMAP) for the Butte Priority Soils Operable Unit (BPSOU) Superfund site. In April of 2012, the Butte Silver Bow Health Department embarked on an effort to design and implement a series of environmental health studies as part of its ongoing program to ensure quality public health for the people of Butte-Silver Bow. This study was developed in satisfaction of a requirement under the Unilateral Administrative Order issued under the Superfund Program by the EPA in September 2011. The goals for the study were also described in the overall Silver Bow County Community Health Improvement Plan, completed in 2011.

The Superfund health study focuses on evaluating blood lead data collected from Butte children from 2003 through 2011. Supplemental information about RMAP assessments and abatements is also presented. Concentrations of lead in blood samples provide a reliable measure of lead exposures from all sources (environmental and non-environmental). In this study, blood lead data are evaluated to understand how lead exposures in Butte have changed over this time period, how they compare to blood lead levels for areas outside of Butte, and what factors in Butte might be contributing to differences in blood lead levels within Butte and between Butte and other reference areas.



A copy of the draft final Superfund health study report as well as the EPA-approved study work plan will be accessible at the following on February 28, 2014:

- Butte-Silver Bow website at: <http://co.silverbow.mt.us/135/Health>
- EPA website at: <http://www2.epa.gov/region8/silver-bow-creek-butte-area>

Hard copies of the draft final report will also be available for review at the following locations:

Montana Tech Library  
1300 West Park Street  
Butte, MT 59701

Citizens' Technical Environmental Committee (CTEC)  
27 W Park Street  
Butte, MT 59701

Comments related to the draft final report must be received no later than April 29, 2014 for evaluation and inclusion as appropriate in the final report. Comments can be emailed to [dpowers@bsb.mt.gov](mailto:dpowers@bsb.mt.gov) or mailed to:

Butte Silver Bow Health Department  
Attn: Dan Powers, Assistant Health Director  
25 W. Front Street  
Butte, Montana 59701

In addition to the current Superfund study, the Department is also working on separate air quality-related studies that will address non-Superfund health concerns identified by the public at a series of listening sessions held in May of 2012. The non-Superfund studies are not addressed in the draft final Superfund health study report and are not the subject of the upcoming public comment period and April 9<sup>th</sup> public meeting.

**The Superfund Health Study Working Group Member Organizations:**

Butte-Silver Bow Health Department  
US Environmental Protection Agency  
Montana Department of Environmental Quality  
Agency for Toxic Substances and Disease Registry  
Atlantic Richfield  
Citizens' Technical Environmental Committee  
Citizen's Advisory Committee established by the Butte-Silver Bow Health Department